

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
ASSISTANT SECRETARY FOR HOUSING-FEDERAL HOUSING COMMISSIONER

Series and Series Number:

(Supersedes issue dated
September 17, 1992)

MATERIALS RELEASE NO. 758d

TO: DIRECTORS, HOUSING DIVISION
DIRECTORS, MULTIFAMILY DIVISION
DIRECTORS, SINGLE FAMILY DIVISION

ISSUE DATE: November 20, 1996

REVIEW DATE: November 20, 1999

SUBJECT: 1. Product Wonder-Board® Lightweight Glass Reinforced Precast
Concrete Panel

2. Name and Address of Manufacturer Custom Building Products, Inc.
13001 Seal Beach Blvd.
Seal Beach, CA 90740

Data on the nonstandard product described herein have been reviewed by the Department of Housing and Urban Development and determination has been made that it is considered suitable from a technical standpoint for the use indicated herein. This Release does not purport to establish a comparative quality or value rating for this product as compared to standard products normally used in the same manner.

This Materials Release cannot be used as an indication of endorsement, approval or acceptance by HUD of the described product, and any statement or representation, however made, indicating such approval, endorsement or acceptance by HUD is unauthorized. See Code 18, U.S.C. 709.

Any reproduction of this Release must be in its entirety.

USE: A non-loadbearing backer board for walls, ceiling, and countertop installations; an underlayment for floor installations of ceramic tile, slate, marble, stone and thin brick, and a component of a 2-hour fire resistive wall assembly.

DESCRIPTION:

"Wonder-Board" is a precast, lightweight concrete panel consisting of an expanded shale aggregate in a Portland cement matrix, with fiberglass mesh bonded on each side using a Portland cement slurry. The panels are 7/16" thick, and are available in a width of 36", and lengths of 48", 60", 72", and 96". Each panel has an approximate density of 83 pcf., and weighs 3.0 psf.

"Wonder-Board" shall have an average compressive strength of not less than 2500 psi. when tested in compliance with ASTM C-165, and an average flexural strength of not less than 1000 psi. when tested in compliance with ASTM D-1037. Average compressive strength when tested with ASTM D-2394 shall be > 2000 psi,; and all other properties shall meet or exceed ANSI A-118.9.

INSTALLATION:

1. Studs to receive "Wonder-Board" as a backer board shall not be spaced greater than 16" o.c. Stiffness of the wall must be such that the deflection does not exceed $1/360$ of the span, under live and dead loads.

Steel studs shall be 20 gauge or heavier, and have a minimum depth of 3 1/2". The panels shall be fastened with 1 1/4" Hi-Lo bugle-head Type S screws. On studs heavier than 20 gauge, the panels shall be fastened with Tek #3 self-embedding-head screws. All screws shall be spaced 8" o.c., and applied with a conventional screw gun.

2. Panels shall be fastened to wood studs with minimum 1 1/2" long galvanized roofing nails spaced no greater than 8" o.c.
3. Maximum spacing of floor joists shall be 16" o.c., and deflection shall not exceed $1/360$ of span with applied dead and live loads.
4. "Wonder-Board" used as an underlayment shall be installed over 1/2" or thicker plywood, or a 3/4" board subflooring. A self-leveling coat of mortar approved by Custom Building Products, Inc. is spread with a notched trowel to fill all voids in the subflooring. The "Wonder-Board" panels are then laid in place, and nailed or screwed through the leveling coat every 6" to 8" in both directions with 1 1/2" galvanized screw-type roofing nails.
5. "Wonder-Board" panel joints shall not be placed in line over joints in the subflooring. Joint spacing between the panels shall be approximately 3/16", and filled solid with a mortar approved by Custom Building Products, Inc.
6. Grouting shall be specified by Custom Building Products, Inc. for the type of finish proposed.
7. A newly installed floor shall be protected from traffic for not less than 72 hours.
8. Areas behind "Wonder-Board" that must be protected completely from moisture shall be covered with a water-resistant membrane.

9. "Wonder-Board" panels shall not be used structurally. Structural support shall be as specified by Custom Building Products, Inc.
10. "Wonder-Board" panels shall bear Custom Building Products, Inc. name and trademark, and this HUD Materials Release (MR) number.
11. When used as a component of a 2-hour fire resistive wall assembly, "Wonder-Board" panels shall be installed in compliance with the description of materials listed on page 2, and the drawings and details on page 12 of the Factory Mutual Research Report J.I. 1E7Q7.AC, dated 1/6/80. When required, this document shall be made available by Custom Building Products, Inc.

WARRANTY:

Custom Building Products, Inc. warrants "Wonder-Board" panels against any defects due to faulty material and workmanship in the manufacturing process for a period of twenty (20) years from the date of installation.

The liability of Custom Building Products, Inc. under this warranty shall be limited to replacement of any defective panels and the cost of installation; or at the option of Custom Building Products, Inc., payment in lieu thereof.

This warranty applies to material failure due to manufacture only, and does not cover, nor will the manufacturer be liable for, any defects or damages due to misuse, improper installation, or resulting from fire, lightning, or other unforeseen causes beyond the manufacturer's control.

The manufacturer's warranty does not relieve the builder, in any way, of his responsibility under the terms of the Builder's Warranty required by the National Housing Act, or under any provisions applicable to any other housing program.

MANUFACTURER'S RESPONSIBILITIES:

Issuance of this Materials Release (MR) commits the manufacturer to fulfill, as a minimum, the following:

1. Produce, label and certify the material, product or system in strict accordance with the terms of this MR.
2. Provide necessary corrective action in a timely manner for all cases of justified complaint, poor performance or failure reported by HUD.
3. When requested, provide the Office of Consumer and Regulatory Affairs, Manufactured Housing and Standards Division, HUD Headquarters, with a representative list of properties, in which the material, product or system has been used, including complete addresses or descriptions of locations and dates of installation.
4. Inform HUD in advance of changes in production facilities, methods, design of the product, company name, ownership or mailing address.

EVALUATION:

This MR shall be valid for a period of three years from the date of initial issuance or most recent renewal or revision, whichever is later. The holder of this MR shall apply for a renewal or revision 90 days prior to the Review Date printed on this MR. Submittals for renewal or revision shall be sent to HUD Headquarters. Appropriate User Fee shall be sent to:

U. S. Department of Housing and Urban Development
Technical Suitability of Products Fees
P. O. Box 954199
St. Louis, MO 63195-4199

The holder of this MR may apply for revision at any time prior to the Review Date. Minor revisions may be in the form of a supplement to the MR.

If the Department determines that a proposed renewal or supplement constitutes a revision, the appropriate User Fee for a revision will need to be submitted in accordance with Code of Federal Regulations 24 CFR 200.934, "User Fee System for the Technical Suitability of Products Program," and current User Fee Schedule.

CANCELLATION:

Failure to apply for a renewal or revision shall constitute a basis for cancellation of the MR. HUD will notify the manufacturer that the MR may be canceled when:

1. conditions under which the document was issued have changed so as to affect production of, or to compromise the integrity of the accepted material, product, or system,
2. the manufacturer has changed its organizational form without notifying HUD, or
3. the manufacturer has not complied with responsibilities it assumed as a condition of HUD's acceptance.

However, before cancellation, HUD will give the manufacturer a written notice of the specific reasons for cancellation, and the opportunity to present views on why the MR should not be canceled. No refund of fees will be made on a canceled document.

This Materials Release is issued solely for the captioned firm,
and is not transferable to any person or successor entity.
